

Calculation Guide for the 2013 Family Living Wage for Manitoba

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INTRODUCTION

The purpose of this guide is to assist others in calculating a living wage for their own communities, using the method developed by the CCPA-BC and First Call to calculate Vancouver and Victoria living wages in 2008. This particular guide will be most useful for the calculation of the living wage in Manitoba communities. The method can be applied in other provinces and territories; however, the government transfers and tax information will need to be adjusted accordingly.

This guide also serves as an updated technical appendix to a 2009 public report, *The View From Here: How a Living Wage Can Reduce Poverty in Manitoba*, which outlines the concept of a living wage and provides the arguments in favour of its adoption by employers. The 2009 report presents the amounts of the living wages (using for the most part data as of the end of 2008) for Winnipeg, Brandon and Thompson, and summarizes the assumptions in the calculations, the formula that calculates the living wages, and how the family expenses are calculated. The data in this report are for the most part as of the end of 2012 and drive the living wages presented in the *A Family Living Wage for Manitoba 2013*. The original 2009 report, the original calculation guide, the *Manitoba Living Wage Update 2013*, and this calculation guide can be downloaded at <http://www.policyalternatives.ca/offices/manitoba/publications>.

This detailed, step-by-step guide explains how you can calculate the amount of a living wage for your community. The process involves calculating family expenses, government transfers and government taxes. You could proceed by making adjustments only to family expenses based on costs in your community and hope that the government transfer and tax formulas do not change due to the income level of the family (thus skipping Stages 2 and 3 as outlined in the next section). However, as you read through this guide, you will appreciate that this hope may not be well founded, and that it is prudent to work through the details of the government transfer and tax information as well.



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The original 2009 report and the 2013 *Update* focus on the living wage for a two-parent family with two children. According to the 2011 census, 72 per cent of families with children in Manitoba are headed by couples and 63 per cent of them have two or more kids.¹ However, this guide also calculates the living wage for single parent families with one and two children, as well as a single individual and a single full-time student. The guide notes the changes to the calculations that the different family sizes require.

As a caution, the living wage amount is based on ever-changing information regarding family expenses and government transfers and taxes. Therefore, the information provided is accurate as of the date of this writing. Bear in mind that the data must be revised for calculations in other communities or tax years.

Finally, the living wage amount is an estimation based on the assumptions outlined below and summarized on pages 14 to 22 of *The View From Here: How a Living Wage Can Reduce Poverty in Manitoba*. The precise expenses for any given family will obviously vary. The purpose of the family expenses calculation is to ensure provisions for the ability to:

- Feed, clothe and provide shelter for their family;
- Promote healthy child development;
- Participate in activities that are an ordinary element of life in a community; and
- Avoid the chronic stress of living in poverty.

If you or your organisation uses our methodology to calculate a living wage for your community, the CCPA-MB would very much appreciate hearing from you and learning which community you live in and the living wage amount.

CALCULATING THE LIVING WAGE

Overview of the Calculation Process

The calculation of the living wage can be quite complex. As you work through the steps, keep in mind the following stages:

- Stage 1 – Calculating Family Expenses;
- Stage 2 – Calculating Government Transfers (CCTB, UCCB, GST);
- Stage 3 – Calculating Government Deductions and Taxes;
- Stage 4 – Determining the Living Wage Amount; and
- Stage 5 – Verifying the Calculations.

¹ Statistics Canada. 2012. Manitoba (Code 46) and Canada (Code 01) (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed August 21, 2013).

The living wage is calculated by using the Excel spreadsheets (there are separate spreadsheets for Winnipeg, Brandon and Thompson) that accompany this guide (and which are also available for download at <http://www.policyalternatives.ca/offices/manitoba/publications>). In addition, there are numerous sources you will need to consult in regard to family expense amounts and formulas for government transfers and taxes. Whenever possible, these are identified in the guide.

The method for calculating the living wage remains constant. However, with time and/or with a shift of focus to a community other than those presented in this report, the following will change and require updating.

- Family Expenses: Require the most recent data sources and Consumer Price Index data.
- Government Transfers: The CCTB and GST rebate amounts remain the same from July of one year to June of the next. However, the formulas may change each July.
- Government Taxes: The tax rules and formulas change for each tax (calendar) year.

Background Information

The primary determinants of the living wage are income from employment and family expenses. However, the calculation also factors in the income the family receives from government transfers and deductions from income for statutory contributions (EI and CPP) and taxes. Thus, the living wage is the hourly rate of pay at which a household can meet its expenses once government transfers have been added and government deductions have been subtracted. The living wage is thus calculated using the following formula.

$$\begin{array}{ccccccc}
 \text{Annual} & & & & & & \\
 \text{family} & & & & & & \\
 \text{expenses} & = & \text{Income from} & + & \text{Income from} & - & \text{EI and CPP premiums,} \\
 & & \text{employment} & & \text{government} & & \text{federal and} \\
 & & \text{(living wage)} & & \text{transfers} & & \text{provincial taxes}
 \end{array}$$

The Excel spreadsheets integrate the information regarding family expenses with the calculations for government transfers and deductions from income, as indicated in this formula.

The Question of Timing

Because all the elements of the calculation of the living wage (family expenses, government transfers, and government deductions and taxes) are frequently changing, you need to make decisions regarding the point in time at which you fix expenses, transfers and taxes.

For the calculations of the 2013 living wages in this report, we chose:

- Family expenses amounts at the end of December 2012;
- Government transfer amounts for the July 2012 to June 2013 time period; and
- Government deductions and taxes for the 2012 tax year.

The Mechanics of the Excel Spreadsheet

The following explains the layout and components of the Excel spreadsheets that accompany this guide and how the elements of the living wage are integrated into the spreadsheets. Each spreadsheet (Winnipeg, Brandon and Thompson) has the same structure, however the family expense and government transfer amounts are different, reflecting local conditions. The spreadsheets have the following five tables:

- Table I – Family Expenses;
- Table II – Non-Wage Income (Government Transfers);
- Table III – Family Income less Family Expenses;
- Table IV – The Living Wage and Government Deductions and Taxes; and
- Table V – Family Income less Government Deductions and Taxes plus Government Transfers.

Table I, II and IV each calculate one element of the living wage formula presented above. Table III compares family income with family expenses, and based upon this the wage in Table IV is adjusted to calculate the living wage. Key components of the Excel spreadsheets are listed below.

- Cell C20 in Table I is the amount of the family's total annual expenses.
- Cell C31 in Table II is the total annual amount of government transfers received by the family.
- Cells B45 and C45 in Table IV are the hours per week of employment for each parent.
- Cells B46 and C46 in Table IV are the hourly wages for each parent. These are set to be equal.
- Cells B48 and C48 in Table IV are the annual incomes from employment for each parent.
- Cell D55 in Table IV is the total annual amount of employment income available for the family after government deductions and taxes have been subtracted.
- Cell C37 in Table III is the family's total annual income; the sum of government transfers and employment income after government deductions and taxes.
- Cell C38 in Table III reproduces the family's total annual expenses.

- Cell C39 in Table III indicates the gap between the family's annual income and its annual expenses.

Table V summarizes the family's overall finances, presenting its income from employment, total government taxes, total government transfers, and its annual net surplus.

The spreadsheets have one tab for each family type. As noted above, Winnipeg, Brandon and Thompson all have separate spreadsheets.

STAGE 1: FAMILY EXPENSES

Calculating the living wage requires deciding upon the family characteristics for which the living wage is to be calculated (see Table 1 for the family characteristics used in this report). It is useful to determine the most common family types in your community, in order to achieve living wage estimates that best match the profiles of families in your community.

Table 1: Assumptions about Family Characteristics in the 2013 Living Wage Calculation

	Model 1: Two-parent, two-child family	Model 2: Single- parent, one child	Model 3: Single- parent, two children	Model 4: Single Student	Model 5: Single Adult
Adults					
Number	2	1	1	1	1
Gender	1 female, 1 male	female	female	female	male
Age	25-44	25-44	25-44	19-24	25-44
Number of adults in paid work	2	1	1	1	1
Hours of paid work per adult	35	35	35	20	35
Hourly wage	equal for both				
Children					
Number	2	1	2	0	0
Gender and age	boy aged 7, girl aged 4	girl aged 4	boy aged 7, girl aged 4		

The Categories of Family Expenses

Family expenses are divided into the ten categories listed below. The first five categories originate from the Market Basket Measure (MBM), a measure of low income in Canada that was developed by Human Resources and Skills Development Canada (HRSDC) in the late 1990s. The MBM provides an intuitive look at low income because it is "based on a basket of goods and services representing a modest, basic standard of living."² The last five categories represent other necessities of the family budget. Living wage calculations across Canada utilise this same categorization of family expenses. This report derives expenses for

2 Michael Hatfield, Wendy Pyper and Burton Gustajtis. *First Comprehensive Review of the Market Basket Measure of Low Income*. Human Resources and Skills Development Canada, 2010, accessed September 15, 2013, http://publications.gc.ca/collections/collection_2011/rhdcc-hrsdc/HS28-178-2010-eng.pdf, p. 1.

Clothing and Footwear, Transportation and Other directly from the MBM database (maintained by Statistics Canada). Local data are used for: Food, Shelter, Transportation (bus passes), Child care, Non-MSP Medical Expenses, and Adult Education. The Contingency Amount equals two weeks of pay for each adult at the calculated living wage. The MBM amounts that are used for Clothing and Footwear and Other expenditures in Thompson are the Winnipeg amounts multiplied by an adjustment factor to reflect the cost of living in northern communities (MBM data is not collected specifically for Thompson).

1. Food
2. Clothing and Footwear
3. Shelter
4. Transportation
5. Other
6. Child care
7. MSP Premiums
8. Non-MSP Medical Expenses
9. Adult Education
10. Contingency Amount

The following sections explain the source of the data for each expense, provide links to the data sources where available, and present the calculation formulas used. Some of the data are presented as monthly expenses; these are adapted to annual expenses in the formulas of the Excel spreadsheets.

The purpose of the living wage is to provide only an adequate level of wellbeing and thus the family expenses are based on conservative or lower than average family expense amounts. This is accomplished in part by adopting the Market Basket Measure amounts, as the MBM was developed to provide a perspective on low income in Canada. The MBM expenses for Food, Clothing and Footwear, and Shelter are based on median expenditures, and Transportation and Other expenses are based on less than median expenditures. Median family expenditures are almost invariably less than average family expenditures. The reason being that average expenditures are pulled upward by the elevated incomes and expenditures of higher income families. To be consistent with this approach, when possible, we use median expenses when incorporating expense amounts from other sources.

CALCULATING EACH OF THE FAMILY EXPENDITURES

The information in this section explains how each of the family expenses is calculated.

1. Food

Information needed:

- Dataset from *The Cost of Eating According to the 'Nutritious Food Basket' in Manitoba* (2012) by the Community Health Through Food Security Group (acquired from the authors via the Heart & Stroke Foundation "Contact Us" email form).³
- Annual Consumer Price Index (CPI) data for "Food" for Manitoba from Statistics Canada CANSIM Table 326-0021, <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3260021&paSer=&pattern=&stByVal=1&p1=1&p2=37&tabMode=dataTable&csid=>.

The Cost of Eating According to the 'Nutritious Food Basket' in Manitoba calculates food costs throughout urban, rural and northern Manitoba by surveying 128 stores for a standardised list of 67 food items.⁴ The Nutritious Food Basket excludes foods of little nutritional value (canned soups, frozen entrees, etc.) as well as food dollars spent outside of the home (restaurants). For Winnipeg, 70 stores were surveyed, 35 of which were full service (contained 60/67 food items). For Brandon, 4 stores were surveyed and 3 of them were full service. Data for Thompson is drawn from a sample of full service major grocery chains. Consequently, food expenses for Thompson are actually slightly lower than in Brandon. It is important to note that this is not reflective of northern Manitoba communities in general. Residents outside of Thompson will pay significantly higher prices at smaller grocers in their regions. The living wage in other northern Manitoba communities will be much different than that in Thompson.

The '*Nutritious Food Basket*' dataset contains information for various reference ages and a variety of family types can be inferred from them. The reference age groups in the '*Nutritious Food Basket*' report are slightly different than the assumed ages of the family members in the model families used in the living wage calculations. For instance, the adults in this report are assumed to be 25-44 years of age, while the '*Nutritious Food Basket*' report uses an age group of 31-50. The '*Nutritious Food Basket*' report considers 4-8 year olds in the same reference category, thus covering both the 7 year old boy and the 4 year old girl assumed in this report. The single student in Model 4 of this report is assumed to be 19-24 years of age, while the '*Nutritious Food Basket*' report utilises a 19-30 year old age group. We feel that there is enough overlap in the age groups to adopt the food expenses calculated from the '*Nutritious Food Basket*' dataset.

Each age category in the '*Nutritious Food Basket*' report is broken down by gender and additional categories exist for pregnancy and lactation. A simple adjustment factor is used for family sizes of less than four people to account for the higher per person food costs associated with smaller family sizes. An adjustment factor of 1.20 is made to the weekly food cost for a single person and a factor of 1.05 is used for families of fewer than four people but greater than one person. Finally, the data from the '*Nutritious Food Basket*' report are current to May 2011, thus annual CPI data for "Food" can be used to update the prices to the end of 2012.

Each tab of the Excel spreadsheet includes annual food expenses in cell C9. Each formula follows the following logic:

3 The report is available at http://www.heartandstroke.mb.ca/site/c.lgLSIVoyGpF/b.8340081/k.C51/The_cost_of_healthy_eating__Manitoba_Report.htm.

4 The standardised list of 67 items is borrowed from the Government of Ontario's Nutritious Food Basket Guidance Document.

Weekly food expense for parent 1 +

Weekly food expense for parent 2 (if required) +

Weekly food expense for child 1 (if required) +

Weekly food expense for child 2 (if required)

Subtotal

x Adjustment factor (if required) (= family's adjusted weekly food expense)

x 52 (= family's annual food expense in 2011 prices)

x CPI adjustment (= family's monthly food expense in 2012 prices)

Step 1: Obtain the family's weekly food expense based on the '*Nutritious Food Basket*' dataset (according to the number, gender, and age of the parents and children). Multiply by the adjustment factor if necessary.

Step 2: Multiply the amount in Step 1 by 52.

Step 3: Multiply the amount in Step 2 by the CPI for "Food" for Manitoba (adjust using the "Add/Remove data" tab) in the year for which you are doing the study and divide by the CPI for "Food" for MB in 2011. Repeat for all family types.

2. Clothing and Footwear

Information needed:

- MBM Clothing Thresholds for 2011 for MB from Statistics Canada CANSIM Table 202-0809, <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=2020809&paSer=&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=>.
- Annual CPI data for "Clothing and footwear" for MB from Statistics Canada, <http://www.statcan.gc.ca/tables-tableaux/sum-som/I01/cst01/econ09h-eng.htm>.
- Annual CPI data for "All-items" for MB from Statistics Canada (same link as above).

Note that the MBM was reviewed in 2009 and 2010 by researchers at Human Resources and Skills Development Canada (HRSDC) and Statistics Canada. The "First Comprehensive Review" of the MBM resulted in a 'downgrading' of the Clothing and Footwear basket. Initially in 2000, the MBM Clothing component used the methodology developed by Social Planning Council of Winnipeg (SPCW) and Winnipeg Harvest for the Acceptable Level of Living (A.L.L.) report. However in 2010, price collection difficulties and the feeling of the researchers that the A.L.L. "represented a standard of consumption somewhat above the level that the MBM was to reflect," resulted in a new methodology being adopted. The methodological change was negligible, as the impact on the Clothing component in 2007

(relative to 2006) ranged from -1.9% to 0.3%.⁵ The 2012 A.L.L. has largely maintained the methodology developed by SPCW and Winnipeg Harvest and provides an interesting perspective on low-income in Manitoba.⁶

Winnipeg and Brandon:

Step 1: Adjust CANSIM Table 202-0809 using the “Add/Remove data” tab. For “Geography” include only “Brandon, Manitoba,” and “Winnipeg, Manitoba.” For “Component” include only “Clothing.” Find the 2011 Thresholds for Winnipeg and Brandon.

Step 2: Multiply each amount (Winnipeg and Brandon) by the CPI for “Clothing and footwear” for Manitoba in the year for which you are doing the study and divide by the CPI for 2011.

To convert to other family sizes, the MBM has a fairly simple formula. To adjust any given MBM Threshold value, divide the value by 2 (the square root of four, which is the number of persons in the MBM reference family) and multiply by the square root of the number of persons in the desired family type.

Thompson:

MBM data is not collected specifically for Thompson like it is for Winnipeg and Brandon. However, prices in Thompson are generally more expensive than prices in Winnipeg and Brandon due to the increased transportation costs. The 2009 Manitoba Living Wage report⁷ includes a calculation of the price differential between Winnipeg and Thompson for a fixed basket of goods, purchased at three big-box retailers. The basket is a modified version of the basket used in the Acceptable Level of Living (A.L.L.) report published by Social Planning Council of Winnipeg (SPCW) and Winnipeg Harvest⁸ (see Appendix B of the 2009 Manitoba Living Wage report for a precise list of items in the basket and their prices). The total cost of the Winnipeg basket in 2009 was \$978.98, while the Thompson basket was \$1,339.05. The costs of these baskets can be updated to 2012 prices using CPI data for “All-items.” Admittedly, this methodology provides only a rough estimate of the current price differential between Winnipeg and Thompson. That being said, some provision for price differences between the two regions must be considered.

Step 1: Adjust the 2009 basket prices. Multiply each amount (the Winnipeg basket and the Thompson basket) by the CPI for “All-items” for Manitoba in the year for which you are doing the study and divide by the CPI for 2009:

$$\text{Winnipeg: } (\$978.98 \times 120.3) / 114.1 = \$1,032.18$$

$$\text{Thompson: } (\$1,339.05 \times 120.3) / 114.1 = \$1,411.81$$

5 http://publications.gc.ca/collections/collection_2011/rhdcc-hrsdc/HS28-178-2010-eng.pdf, p. 23.

6 <http://winnipeg Harvest.org/wp-content/uploads/2012/02/2012-A.L.L.-REPORT.pdf>

7 Available at, <http://www.policyalternatives.ca/publications/reports/view-here-0>.

8 Available at, <http://winnipeg Harvest.org/wp-content/uploads/2012/02/2012-A.L.L.-REPORT.pdf>.

Step 2: Calculate the current price differential. Subtract the Winnipeg basket price from the Thompson basket price and divide by the Winnipeg basket price, multiply by 100 to get the percentage difference: $[(\$1,411.81 - \$1,032.18) / \$1,032.18] \times 100 = 36.8\%$.

Step 3: For each family type, multiply the Winnipeg Clothing and Footwear expense by 36.8% or 1.368 to get the Thompson price.

To convert to other family sizes in Thompson, use the MBM formula for the Winnipeg families first and then multiply each by the price differential, 36.8%.

3. Shelter

The Shelter expense uses the following formula:

Shelter = Rent + Utilities + Content Insurance on Possessions

Rent

Information needed:

- Canada Mortgage and Housing Corporation (CMHC) *Advancing Affordable Housing Solutions* report for Fall 2012. The most recent report is available at <http://cmhc.ca/en/inpr/afhoce/fias/upload/Criteria.pdf>. Older data will have to be requested through email inquiry at the CMHC national office.

This bi-annual report provides median market rent data for many Canadian cities including Winnipeg, Brandon and Thompson. The median price is used for the living wage calculation and is found under “Level 3” (50th percentile) for each apartment type. The rent quoted refers to the actual amount that tenants pay for their unit, and no adjustments are made for the inclusion or exclusion of utilities like heat, electricity and water.⁹ Thus some units may include some or all utilities while others may not.

Three or more bedroom median market rent data is unavailable for Thompson in the Fall 2012 report. As such, average rent data is used for this dwelling type in Thompson. Average rent data can be found from the CMHC’s Publications and Reports database (Housing Market Information — Rental Market Reports-Canada and Provincial Highlights — Manitoba — Fall 2012). Be sure to select the appropriate edition of the report according to the time period for which you want your data to cover.

Families with 2 children are assumed to rent a 3 bedroom apartment, the 1 child family a 2 bedroom apartment and the single adults a 1 bedroom apartment.

Utilities

Information needed:

⁹ CMHC. *Rental Market Report: Manitoba, Fall 2012*.

- Manitoba Hydro 2009 Residential Energy Use Survey Report: Low Income Cut-Off (LICO) Sector, http://www.hydro.mb.ca/regulatory_affairs/electric/gra_2010_2012/Appendix_50.pdf.
- Annual CPI data for “Electricity” for Manitoba from Statistics Canada, <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ09h-eng.htm>.

The *Residential Energy Use Survey* report provides a demographic analysis of Manitoba Hydro’s low-income customers. The report suggests that low-income cut-off apartment renters have an average energy burden of 2.4% (2.4% of annual income is spent on home energy costs).¹⁰ With an average annual income of \$20,318,¹¹ LICO apartment renters spend, on average, \$487.63 per year on home energy costs.

This is a conservative estimate of the utilities expenditure of a renter in Manitoba. Multi-attached apartments generally have the lowest energy burden. Those who rent single-detached homes will have higher annual expenses. Unfortunately, data is not available for average or median utilities expenditures by apartment size. Thus, the apartment suite dwelling type is generalised for all model families in this report.

Step 1: Adjust the \$487.63 annual utilities expenditure for inflation using the CPI for “Electricity” for Manitoba. Multiply \$487.63 by the CPI for “Electricity” for Manitoba in the year for which you are doing the study and divide by the CPI for 2009.

Contents Insurance on Possessions

Information needed: Contents insurance quotes from several insurance agents.

We contacted three different insurance providers in Winnipeg to get estimates for Winnipeg, Brandon and Thompson. All quotes were in the range of \$15 to \$30/month. The price of contents insurance varies according to the level of coverage, price of the deductible, the type of construction of the building (framed versus fire resistive), the distance to a fire hydrant/hall, whether sewer back-up coverage is included, and other factors. This report uses a \$22.50/month contents insurance expense for each family type in each community.

4. Transportation

Information needed:

- MBM “Transportation” Thresholds for 2011 for MB from Statistics Canada CANSIM Table 202-0809, <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=2020809&paSer=&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=>.

¹⁰ Manitoba Hydro. 2009 Residential Energy Use Survey Report: Low Income Cut-Off (LICO) Sector. Winnipeg, 2010. Accessed September 21, 2013, http://www.hydro.mb.ca/regulatory_affairs/electric/gra_2010_2012/Appendix_50.pdf, p. 40.

¹¹ *Ibid.*, p. 21.

- CPI data for “Operation of passenger vehicles” for MB from Statistics Canada CANSIM Table 326-0021, [http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3260021&paSer=&pattern=&stByVal=1&p1=1&p2=37&tabMode=dataTable&csid=.](http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3260021&paSer=&pattern=&stByVal=1&p1=1&p2=37&tabMode=dataTable&csid=)
- Public Transportation Costs

The general formula for the transportation expense is:

$$\text{Transportation} = \text{Vehicle} + \text{Public Transit}$$

Different family types are assumed to have different modes of transportation. The two-parent and single-parent families are assumed to have year-round use of a vehicle. The two-parent family and the single adult have the expense of one adult monthly bus pass for each month. A single student has the expense of one post-secondary monthly bus pass for each month.

Vehicle expenses are taken from MBM Transportation thresholds. These Thresholds are calculated as follows: If a household is located in an urban area with a population greater than 30,000 that has a public transit system, the family¹² is allocated the cost of two adult monthly bus passes and one \$16 round-trip taxi fare per month. Other households are allocated the cost of paying for and operating a five-year-old, four-door, four-cylinder, standard transmission Ford Focus, which includes:

- 1/5 the cost of a five-year-old model Ford Focus including interest charges on a 36-month loan for the vehicle’s purchase price;
- the annual fee for an adult driver’s license;
- the annual cost of registering the vehicle;
- the cost of annual mandatory insurance for the vehicle;
- the cost of 1,500 litres of regular unleaded gasoline for the vehicle; and
- the cost of two oil changes and one tune-up annually.

The annual vehicle amount for 2011 is thus found in both the “Manitoba, rural” and “Manitoba, population under 30,000” categories of the “Transportation” component of the MBM (CANSIM 202-0809). This number can be adjusted for inflation using the CPI data for “Operation of passenger vehicles” for Manitoba. For inflation from 2011 to 2012 for example, multiply the MBM amount for “Transportation” (rural or population under 30,000) by the 2012 CPI value for “Operation of passenger vehicles” and divide the resulting amount by the 2011 CPI value.

Monthly Winnipeg Transit bus passes in 2012 were \$77.00 for adults and \$61.60 for post-secondary students. Monthly Brandon Transit passes were \$66.00 for adults and \$43.00 for post-secondary students. In Thompson, monthly bus passes were \$68.40 for adults and \$36.60 for students in 2012.

Step 1: Adjust CANSIM Table 202-0809 using the “Add/Remove data” tab. For “Geography” include only “Manitoba, rural.” For “Component” include

¹² The MBM reference family consists of two parents aged 25-49, a 9-year-old girl and a 13-year-old boy.

only “Transportation.” The 2011 Threshold represents the annual cost of operating a Ford Focus in Manitoba.

Step 2: Adjust for inflation by multiplying the amount in Step 1 by the CPI for “Operation of passenger vehicles” for Manitoba in the year for which you are doing the study and divide by the CPI for 2011. You will have to adjust CANSIM Table 326-0021 to include only “Manitoba” and “Operation of passenger vehicles.”

Step 3: Add the cost of monthly bus passes if applicable.

5. Other

The Other category is a remainder category to capture all other expenses considered necessary according to current social norms.¹³ The Other category accounts for a wide range of goods and services, including, but not limited to:

- Communication services and equipment
- Household supplies
- Furniture and other household furnishings and accessories
- Climate control equipment
- Small and medium kitchen appliances
- Other electrical parts and equipment
- Food preparation and eating utensils
- Service maintenance of household equipment
- Personal care
- Sporting equipment
- Entertainment
- Children’s toys
- Education supplies and reading materials
- Bank service charges
- Computer and Internet services

The 2011 MBM calculates the Other expense at 75.4% of the combined expense for Food and Clothing and Footwear (this can be found by dividing the 2011 Other threshold by the combined 2011 thresholds for Food and Clothing and Footwear in CANSIM Table 202-0809). The multiplier of 0.754 is used for each reference household’s combined Food and Clothing and Footwear expenses to get the Other expense.

13 Michael Hatfield, Wendy Pyper and Burton Gustajtis. *First Comprehensive Review of the Market Basket Measure of Low Income*. Human Resources and Skills Development Canada, 2010, accessed September 15, 2013, http://publications.gc.ca/collections/collection_2011/rhdcc-hrsdc/HS28-178-2010-eng.pdf, p. 44.

Winnipeg and Brandon:

Step 1: Add each family's Food and Clothing and Footwear expenses.

Step 2: Multiply each amount in Step 1 by 0.754 to get each Other expense.

Thompson:

Similar to the Clothing and Footwear expense, a price differential is applied to the Other expense to reflect the higher prices in Thompson. For each family type, multiply the Winnipeg Other expense by 1.368 to get the Other expense for the Thompson family.

6. Child care

Information needed:

- Maximum child care rates from The Community Child Care Standards Act Child Care Regulation, <https://web2.gov.mb.ca/laws/regs/pdf/c158-062.86.pdf>.
- Number of days for which before and after school child care is required (2012-2013 school year) <http://www.edu.gov.mb.ca/k12/schools/schooldiv.html#students>.

Assumptions:

- The four-year old (pre-school age) is in full-time day care (4 to 10 hours per day) year-round, save for weekends, statutory holidays and two weeks (10 days) of summer holidays.
- The seven-year-old (school age) is in before and after school care (2 periods of attendance) and 1.5 months (30 days not including weekends) of full-time summer care. An additional 15 days of full-time care are added for teacher administration days and spring vacation (note that this assumption does not include full-time day care for Christmas vacation).
- Children attend a private child care centre with a licensee that is classified as an early childhood educator level 2 or 3.

Maximum child care rates are legislated in Manitoba and can be obtained from page 88 (Schedule D) of the regulations accompanying the Manitoba Community Child Care Standards Act (refer to Column 6 for the applicable maximum daily fees for a given child). Table 2 outlines the child care costs associated with each child assumed in this report.

Note that teachers in Manitoba receive 10 administration days per school year and that the number of school days refers to the number of days for which teachers are at work. So while there are 196 school days reported by Manitoba Education, there are only 186 days for which a seven-year old child will require before and after school care.

Single-parent families are also allocated funds for child supervision for 3.5 hours x 26 weeks to attend their adult education class (13 weeks is the approximate length of one

Table 2: Child care Cost Calculation

	Days	Cost per day	Annual Cost
Days in a year	365		
Weekend days (2 x 52)	104		
Statutory holidays ¹	8		
Summer holidays (for working adults)	10		
Total number of workdays = child care days for four-year-old	243	\$19.80	\$4,811.40
School days = days of before and after school care for seven-year-old	186	\$8.30	\$1,543.80
Days of full-day care for seven-year-old	45	\$19.80	\$891
Total cost for children aged 4 and 7			\$7,246.20

1 For a list of Statutory holidays in Manitoba see, http://www.gov.mb.ca/ctt/invest/busfacts/workforce/stat_hols.html

semester). Assuming the child care provider is paid the minimum wage of \$10.25¹⁴ per hour, the annual cost is \$932.75 (10.25 x 3.5 x 26 = 932.75).

7. MSP Premiums

Medical services plan (MSP) premiums are mandatory contributions to the provincial health program. Manitoba does not utilise a premium system and raises the funds for provincial health care through general tax revenue. Other provinces in Canada may utilise MSP premiums and this should be considered in a calculation of the living wage in those provinces.

8. Non-MSP (Private) Health Care Expenses

Information needed:

- Insurance Rates for the “Plus Plan” from Manitoba Blue Cross, http://www.mb.bluecross.ca/products/individual_plans/health_dental_plans/plus_plan_basic_or_equivalent.
- Student health and dental plan rates for local colleges and universities, if available/offered.

In addition to the allocation for health expenses provided for in the MBM “Other” component, we budget for a private health insurance plan to help cover expenses not covered by Manitoba Health. The monthly rates for the “Plus Plan” for adults aged 35-44 is \$56.05 for a single adult (\$672.60 per year) and \$141.05 for a family (\$1,692.60 per year). Note that the single-parent single-child family in this report must also purchase a family plan (as the child is not 18 years of age). The plan includes ambulance and hospital, prescription drug, and vision and dental coverage among other services.

The private health care expenses for the single student in Winnipeg was calculated based on the average of the undergraduate student union health plan fees at Red River College, the University of Manitoba and the University of Winnipeg. Rates are based on coverage for 12-months for the 2012-2013 school year, health and dental included, for a single student.

¹⁴ As of October, 2013, the minimum wage is \$10.45. This guide was prepared prior to the increase.

Table 3: Full time Student Health and Dental Plan Rates, 2012-2013

	RRC	UM	UW	Average
Health	135.00	109.95	153.00	132.65
Dental	120.00	141.05	66.48	109.18
Administration	0.00	5.75	6.83	4.19
Total Annual Fee	255.00	256.75	226.31	246.02

Sources:

- Red River College:
 - Rates: <http://rrc.mb.ca/index.php?pid=430>
 - Plan details: <https://mystudentplan.ca/redriver/mybenefits-at-a-glance>
- University of Manitoba:
 - Rates: <http://www.umsu.ca/services-a-programs-umsumenu-3/health-a-dental-plan-umsumenu-4/health-a-dental-fees-umsumenu-134>
 - Plan details: <http://www.umsu.ca/services-a-programs-umsumenu-3/health-a-dental-plan-umsumenu-4/benefit-booklets-a-id-card-umsumenu-133>
- University of Winnipeg:
 - Rates: <http://theuwsa.ca/wp-content/uploads/2009/08/coverage-rates-for-website.pdf> (rates remained unchanged for the 2012-2013 school year)
 - Plan details: <http://theuwsa.ca/wp-content/uploads/2012/09/benefit-sheet.pdf>

For the Brandon student, the Student Union Health Plan fees at Brandon University were applied (\$250).¹⁵ This amount is used for the Thompson student as well.

9. Adult Education

Information needed:

- Statistics Canada’s estimate for undergraduate tuition fees in Manitoba, <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/educ50h-eng.htm>.
- Estimates for textbooks and other materials and student fees from a local college.

The full time student is assumed to take 30 credit hours per year. Each other adult is allocated the cost of two 3 credit hour courses each year (3 credit hours per regular session semester). In the two-parent family, it is assumed that only one parent is enrolled in adult education.

The cost of full-time tuition in Manitoba as estimated by Statistics Canada for the 2012-2013 school year is \$3,729. This amounts to \$373 per three credit hour course, and thus

¹⁵ Brandon University Student’s Union, “BUSU Health and Dental Plan,” accessed September 21, 2013, <http://busu.ca/section/47>.

Table 4: Estimated Adult Education Expenses

Single Student	Tuition	\$3,729
	Textbooks and other materials	\$1,800
	Endowment Fee	\$131.70
	Student Organisation Fee	\$137.54
	Student Services Fee	\$109.03
	Technology Fee	\$163.50
	Total	\$6,070.77
Other Families	Tuition	\$746
	Textbooks and other materials	\$360
	Endowment Fee	\$26.34
	Student Organisation Fee	\$124.34
	Student Services Fee	\$109.03
	Technology Fee	\$65.40
	Total	\$1,431.11

an expense of \$746 for 6 credit hours. Textbook and other materials expenses are estimated to be \$1,800 per year for a full-time, first-year undergraduate. This works out to \$360 for 6 credit hours. There are several other compulsory fees associated with university education.¹⁶ At the University of Manitoba (UofM) these fees are calculated as:

Endowment + Student Organisation + Student Services Fees + Technology Fee + Other Fees¹⁷

Endowment fees vary according to faculty. The average endowment fee for the 2012-2013 school year at the UofM per credit hour (excluding dental hygiene, dentistry, law, and medicine, where fees are typically higher) was \$4.39.¹⁸ That works out to \$131.70 for 30 credit hours and \$26.34 for 6 credit hours.

Student Organisation fees are also faculty specific. They are comprised of a flat fee per term, plus a faculty fee per credit hour. The average flat fee per term (excluding dental hygiene, dentistry, law, and medicine) in 2012-2013 at the UofM was \$60.52, while the average faculty fee per credit hour was \$0.55.¹⁹ For 30 credit hours, the Student Organisation fee works out to \$137.54 and for 6 credit hours (over two semesters) it is \$124.34.

The 2012-2013 Student Services Fees and Technology Fee were obtained from the UofM Office of Institutional Analysis (archived rates were unavailable on the UofM website). The Student Services Fees include the Library Fee, Registration Fee and Student Services Fee and are applied per each registered student, regardless of term or course load. Each student pays \$109.03 per regular academic year. The Technology Fee is assessed each term. For students in a course-based program the fee is \$5.45 per credit hour, assessed to a maximum of 15 credit hours. For the full-time student, that amounts to \$81.75 per term (\$163.50 for the year), and for 3 credit hours it works out to \$32.70 per term (\$65.40 for the year).

16 University of Manitoba, "University Costs," accessed September 21, 2013, <http://umanitoba.ca/student/admissions/finances/university-costs.html>.

17 University of Manitoba, "Fee Information," accessed September 21, 2013, <http://umanitoba.ca/student/records/fees/index.html>.

18 University of Manitoba, "Archive: Fees 2012-2013," accessed September 21, 2013, <http://umanitoba.ca/student/records/fees/fees-archive-2012-2013.html>.

19 *Ibid.*

To sum, all families except the single student are allocated an Adult Education expense of \$1,431.11. The single student incurs an expense of \$6,070.77. In this report, these amounts have been generalised to all communities (Winnipeg, Brandon and Thompson).

10. Contingency Amount

The Contingency Amount provides some cushion for unexpected events, such as serious illnesses, transitions between jobs, etc. It is provided as an expense for each adult, calculated as:

The living wage amount x hours worked per week x 2 weeks

STAGE 2: GOVERNMENT TRANSFERS

This information is calculated in Table II of the Excel spreadsheet. The formulas for each of the government transfers are found to the right of Table II in the Excel spreadsheets. Be sure to update the formulas according to the specific rules for a given tax year.

Government transfers reduce the amount of the living wage by providing a source of income for family expenses. The possible transfers are:

- Canada Child Tax Benefit (CCTB);
- Universal Child Care Benefit (UCCB);
- GST Rebate; and
- Provincial Child Care Subsidy

The CCTB and the GST Rebate are based on formulas set in July of each year and the amount remains the same until the following June.

The amounts of government transfers that a family receives each year are calculated based on the family's income from the previous tax year. If the living wage for your community has been calculated previously, we suggest that you use last year's living wage family income to determine the government transfers that the family would be eligible for. If this is the first time the living wage is being calculated for your community or it has been several years since the last calculation, use this year's family income to determine the government transfers amounts for the family.

1. The Canada Child Tax Benefit (CCTB)

Information needed:

- The Canada Revenue Agency (CRA) "Canada child tax benefit (CCTB) — calculation sheet for the July 2012 to June 2013 payments (2011 tax year), <http://www.cra-arc.gc.ca/bnfts/cctb/cctb11byclc-eng.html>.

The CCTB is an income-tested benefit received for children under 18 years of age. The amount is affected by two factors:

Table 5: Child Tax Benefit Formula

CCTB	=	Basic Benefit (BB)	-	Benefit Reduction (BR)	+	National Child Benefit Supplement (NCBS)
2 Children	=	2 x \$1,405	-	(family net income - UCCB - \$42,707) x 0.04	+	\$2,177 (first child) + \$1,926 (second child) - [(family net income - UCCB - \$24,863) x 0.23]
1 Child	=	1 x \$1,405	-	(family net income - UCCB - \$42,707) x 0.02	+	\$2,177 (first child) - [(family net income - UCCB - \$24,863) x 0.122]
				if negative set = to 0		if negative set = to 0

- The number of children; and
- The family's net income.

The CCTB formula has the following three components:

- Basic Benefit, which is a monthly amount (\$117.08; or \$1,405 annually) multiplied by the number of children;
- Benefit Reduction, by means of which the CCTB is reduced after a family's net income reaches a specified amount; and
- National Child Benefit Supplement (NCBS), which provides an additional amount for families with low-income, based on the number of children and the family's net income.

The following table summarizes the CCTB formulas relevant to this report — the numbers in bold and underlined vary with the number of children. All of the numbers, and the formula itself, can change each July.

For the two parent, two child family, the Canada Child Tax Benefit Benefit Reduction begins at a family net income of \$43,907 (as family net income minus UCCB minus \$42,707 would equal zero). The National Child Benefit Supplement (NCBS) ceases at a family net income of \$43,902.13 (as 0.23 times the sum of family net income minus UCCB minus \$24,863 would exceed \$4,103, nullifying the benefit).

Note that the CCTB and GST formulas in the Excel spreadsheets for the single parent families are slightly different than for the two-parent family. The UCCB amount is not deducted from net income because single parents are able to defer UCCB amounts received to the income of a child. See the next section on the UCCB and Stage 3 of this report for further information.

2. The Universal Child Care Benefit (UCCB)

Information needed:

- The CRA "Canada Child Benefits" guide, <http://www.cra-arc.gc.ca/E/pub/tg/t4114/t4114-e.html>.

This benefit is \$100/month for each child under six years of age.

The UCCB is not taxable for a single parent. Note that the formula for adjustments to income from employment in Cell B49 does not include the UCCB (as it does for the two-parent family). Instead, the UCCB is dealt with as part of the federal and provincial non-refundable tax credits (see the note below Table 9).

Table 6: GST Credit Formula

GST/HST Credit	=	Base Credit (BC)	+	Additional Credits (AC)	-	Credit Reduction
2 adults, 2 children	=	\$260	+	\$260 + \$137 + \$137	-	(net income – UCCB – \$33,884) x 0.05
1 adult, 2 children	=	\$260	+	\$260 + \$137 + \$137	-	(net income – UCCB – \$33,884) x 0.05
1 adult, 1 child	=	\$260	+	\$260 + \$137	-	(net income – UCCB – \$33,884) x 0.05
1 adult	=	\$260	+	lesser of: \$137 or (0.02 x [net income – \$8,439]) if negative set = to 0	-	(net income – UCCB – \$33,884) x 0.05 if negative set = to 0

3. GST Rebate

Information needed:

- The CRA “GST/HST credit – calculation sheet for the July 2012 to June 2013 payments (2011 tax year),” <http://www.cra-arc.gc.ca/bnfts/gsthst/gstccl1-eng.html>.

The GST/HST Credit is an income-tested benefit and is affected by three factors:

- Whether the parent has a spouse or common-law partner;
- The number of children; and
- The family’s net income.

The GST credit is calculated differently for different family structures:

- For a married or common-law couple with children, each adult receives a \$260 credit, plus \$137 for each child.
- For a single person with children, the basic credit of \$260 is given for the adult, plus \$260 for the first child, plus \$137 for each additional child, plus \$137.
- A single person (over 19 years of age) without children receives the basic credit of \$260, plus the lesser of \$137 or 2 percent of their net income that is greater than \$8,439.

4. Provincial Child Care Subsidy

Information needed:

- Maximum child care rates from The Community Child Care Standards Act Child Care Regulation, pages 79-82, <https://web2.gov.mb.ca/laws/regs/pdf/c158-062.86.pdf>.

The Government of Manitoba provides subsidies for families with children attending licensed child care facilities. This is an income-tested benefit and is affected by five factors:

- Whether the parent has a spouse or common-law partner;
- The number of children;
- The number of children in child care;

Table 7: Manitoba Child care Fees with Subsidy

Family Net Income (FNI)	Fee Charged
FNI < TAD	Zero (full subsidy)
FNI < TAD + \$5,356 x (# of children in care)	(FNI – TAD) x 0.25
FNI > TAD + \$5,356 x (# of children in care)	[FNI – (TAD + \$5,356 x (# of children in care))] x 0.50 + \$1,339 x (# of children in care)

- Whether the family lives north (Thompson) or south (Winnipeg, Brandon) of the 53rd parallel; and
- The family’s net income (FNI).

The first step to determine the subsidy amount is to calculate the total allowable deduction (TAD).

- For married couples south of the 53rd parallel that live together, the deduction is equal to \$10,982 for one parent plus \$5,438 for the other. \$3,042 is added for each child under 18 years of age.
- For a single parent or for a married couple that do not live together and whom resides south of the 53rd parallel, the deduction is \$10,982 for the parent, plus \$5,438 for the first child under 18, plus \$3,042 for each additional child.
- For married couples north of the 53rd parallel that live together, the deduction is equal to \$12,083 for one parent plus \$6,554 for the other. \$3,881 is added for each child under 18 years of age.
- For a single parent or for a married couple that do not live together and whom resides north of the 53rd parallel, the deduction is \$12,083 for the parent, plus \$6,554 for the first child under 18, plus \$3,881 for each additional child.

The formula for determining the family’s subsidy amount depends on which of the three possible categories the family falls into with respect to its family net income (FNI).

- If the family net income is less than its total allowable deduction (TAD), the family gets a full subsidy.
- If the family’s net income is above its TAD but less than the TAD plus \$5,356 for each child in care, the family pays 25 percent of the difference between their family net income and the TAD.
- If the family’s net income is greater than its TAD plus \$5,356 for each child in care, the family pays 50 percent of the difference between its family net income and the TAD plus \$5,356 for each child in care, plus \$1,339 for each child in care.

In no event shall a family have to pay more than the annual subsidized fee actually charged as part of the regular day care services. Use Column 3 of Schedule D in The Community Child Care Standards Act Child Care Regulation along with the child care expense table in the Family Expenses section of this report to determine the actual fees paid.

The formulas for calculating the child care subsidy are found in cells E32, F32 and C30 of the Excel spreadsheet. It is important to note that the “Fee Charged” in Table 7 above does not include a \$2.00 per day charge for full day care and a \$1.80 charge for before and after school care that are not eligible for subsidy and must be paid by the parent (see Schedule D of The Community Child Care Standards Act Child Care Regulation). This is taken into account in the formula in cell C30.

5. RentAid

Information needed:

- RentAid thresholds for families, <http://www.gov.mb.ca/tce/eia/assistance/shelterbenefit-families.html>.

The Province of Manitoba has a rental assistance program for low-income families, seniors and persons with disabilities. This benefit is income-tested (based on the previous year’s income tax return.²⁰) and non-taxable. Families must receive the Canada Child Tax Benefit and spend at least 25% of monthly income on rent. There are different thresholds depending on family size. The annual income thresholds for 2013 are:

- Family of two (one parent/guardian and one child) – \$26,551
- Family of three (one parent/guardian and two children or two parents/guardians and one child) – \$28,688
- Family of four (one parent/guardian with three or more children or two parents/guardians with two or more children) – \$29,839

In this report, the living wages were calculated without the inclusion of RentAid. Once the living wages were calculated, the annual incomes were compared with the thresholds. Only the single-parent one child family in Brandon qualified. The following formula for RentAid was added to the calculation in “Table II: Non-Wage Income (Government Transfers)” at Cell B31:

$$\text{Monthly Rent} - [(\text{Pre-Tax Income} - \text{UCCB}) / 12] * 0.25 + \$20$$

In short, monthly rent minus 25% of monthly income plus \$20. The maximum benefit is \$230/month.

STAGE 3: GOVERNMENT DEDUCTIONS AND TAXES

Information needed:

- General Income Tax and Benefit Guide 2012, as well as Schedules and Forms for Manitoba, <http://www.cra-arc.gc.ca/formspubs/t1gnrl/mb-eng.html>.

²⁰ Line 150 of the T1 form — for the model living wage families, this includes employment income plus the UCCB..

This information is calculated in Table IV of the Excel spreadsheets. The government deduction and tax formulas can change each year. For current information, consult the main Canada Revenue Agency webpage (<http://www.cra-arc.gc.ca/>).

To complete Table IV you will need the following information:

- EI Premium rate and formula
- CPP Premium rate and formula
- Federal taxes:
 - Basic personal amount
 - Tax rates
 - Tax brackets and corresponding tax rates
 - Tax credits:
 - EI Premiums
 - CPP Premiums
 - Child Tax Credit
 - Employment Tax Credit
 - Public Transit Credit (if applicable)
 - Tuition, education and textbook amount
 - Medical expenses
- Provincial taxes:
 - Basic personal amount
 - Tax rates
 - Tax brackets and corresponding tax rates
 - Tax credits:
 - EI Premiums
 - CPP Premiums
 - Tuition, education and textbook amount
 - Medical expenses

In addition, for two-parent families you will need to allocate federal and provincial tax credits between the parents in the way that is most advantageous to the family. The formulas in the Excel spreadsheets indicate how these credits have been assigned for the living wage calculations for Winnipeg, Brandon and Thompson.

Note that the formulas may lead to the result that the amount payable is less than \$0.00. In this situation, where tax rules permit, transfer tax credits to the spouse who is paying income tax.

The following table explains the lines in Table IV of the Excel spreadsheet.

Table 8: Tax Calculations

Line	Explanation
Hours / Week	35 hours per week
Wage	This amount is determined after all the tables have been completed
Employment (Pre-Tax) Income	This is total earnings = hourly wage x hours per week x weeks per year
Adjustments (dollar-for-dollar reductions to employment income)	= the UCCB amount – child care expenses claimed (these amounts must be claimed by the spouse with lower income) – Northern Allowance
Net (Taxable) Income	= “Employment Income” plus “Adjustments”
EI Premiums	= “Employment Income” x premium rate (0.0183 in 2012, to a maximum of \$839.97)
CPP Premiums	= (“Employment Income” - \$3,500) x premium rate (0.0495 in 2012, to a maximum of \$2,306.70)
Federal Income Tax	See below
Federal Refundable Tax Credit	See below
Provincial Income Tax	See below
After Tax Income	= “Employment Income” – “EI Premiums” – “CPP Premiums” – “Federal Income Tax” – “Provincial Income Tax”
Monthly After Tax Income	= “After Tax Income” / 12

To calculate the living wage, you need to determine both employment income and taxable income.

Calculating Taxable Income from Employment Income

The following three adjustments are made in calculating Taxable Income from Total or Employment Income for the model family:

- The UCCB amount is added to Employment Income*;
- Child care expenses are deducted from Employment Income; and
- The Northern Allowance is deducted from Employment Income.

Therefore:

Taxable Income = Employment Income + UCCB* – Child care expenses – Northern Allowance

*Note that single parents can claim the UCCB as the income of a child, thus the UCCB amount is not added to the parent’s taxable income.

Regarding this calculation, there are two relevant tax rules (2012):

- The spouse with the lower income must claim the UCCB and child care expenses.
- The amount of child care expenses that can be claimed is limited as follows:
 - For children born 2006 or later, \$7,000;
 - For children born between 1996 and 2005, \$4,000.

See Revenue Canada’s “Information About Child Care Expenses” for more detailed information (<http://www.cra-arc.gc.ca/E/pbg/tf/t778/t778-12e.pdf>).

The Northern Allowance is based on the zone of residency and has three parts: The basic residency amount, the additional residency amount and the travel deduction. To be eligible, one must have lived, on a permanent basis in a prescribed zone for at least six consecutive months. For details see the following Revenue Canada publications:

- T4039: Northern Residents Deductions – Places in Prescribed Zones, <http://www.cra-arc.gc.ca/E/pub/tg/t4039/t4039-e.html>.
- T2222: Northern Residents Deductions, <http://www.cra-arc.gc.ca/E/pbg/tf/t2222/t2222-12e.pdf>.

For the living wage calculations for Thompson, the basic residency amount and the additional residency amount are each equal to the number of days of residency in the relevant zone multiplied by \$4.125. Each adult in the family can claim the basic amount. However, if more than one person claims the basic amount, nobody can claim the additional amount. Single-parents and adults claim the basic and additional amounts while coupled parents each claim the basic amount or have only one person claim the basic amount and the additional amount. Since this report assumes that both parents work for a living wage and their incomes from employment are therefore the same, we have assigned the basic amount to each parent.

At this point, you should adjust the formulas for EI Premiums and CPP Premiums if necessary. As you work through the Federal and Provincial tax sections, be sure to update the formulas in the cells to the right of Table IV in the Excel spreadsheets according to the specific tax rules for the year in which you are working.

Federal Income Tax

The structure of the federal income tax calculation is as follows:

Federal Income Tax = (Taxable Income x tax rate) – (Non-refundable Tax Credits x tax credit rate) – (Refundable Tax Credits x tax credit rate)

Federal Non-refundable Tax Credits

*Note: In addition to the basic personal amount for self, single-parent families can claim the basic personal amount for an eligible dependant minus the UCCB (the latter of which is considered income for the child) for their first child. This is reflected in the formula in Cell H50 of the Excel spreadsheet for the single-parent families. See the tax rules for Line 305 for more details.

Non-refundable tax credits reduce the amount of tax an individual has to pay, but only up to the amount of tax owed. If the amount of non-refundable tax credits exceeds the amount of tax owed, the person does not benefit from these extra tax credits (they either lose them or, in some rare cases, as with the tuition amount, these can be carried over for future years or transferred to a spouse or common-law partner).

Table 9: Federal Non-refundable Tax Credits 2012

Tax Credits	Comments	Claimed by Parent
Basic Personal Amount	= \$10,822 in 2012	Both
EI Premiums	= Employment Income x premium rate; 2012 premium rate is 0.0183, up to a maximum of \$839.97	Both
CPP Premiums	= (Employment Income – \$3,500) x premium rate; 2012 premium rate is 0.0495, up to a maximum of \$2,306.70	Both
Canada Employment Amount	= \$1,095 in 2012 (see Schedule 1)	Both
Child Tax Credit	= \$2,191 per child in 2012	"2"
Public Transit Credit	Annual amount of monthly bus passes	"2"
Tuition, education and textbook amount	For part time adults: = Eligible tuition fees (determined to be \$746 for 6 credit hours in the Expenses section) + Education amount (\$120/month x 8 months) + Textbook amount (\$20/month x 8 months)	
Medical expenses	= Family medical expenses (Non-MSP [Private] Health Care Expenses; C17 in the Excel spreadsheet) – [Net Income (B50 in the Excel spreadsheet) x 0.03]	"1"

Note: To be eligible to claim medical expenses, the family's annual medical expenses must be greater than 3% of the net (taxable) income of the person claiming the expenses.

Federal Refundable Tax Credits

Table 10: Federal Refundable Tax Credits

Tax Credits	Comments	Claimed by Parent
Working Income Tax Benefit	[(Family Working Income – \$3,000) x 0.25] or \$1,762*, (whichever is less). This amount is reduced by (Family Net Income – UCCB – \$15,205**) x 0.15 <i>Note: The WITB works out to zero when the family's net income minus UCCB is greater than or equal to \$26,952 (for couples and families with children) or \$17,478 for single individuals.</i>	"2"
Refundable Medical Expense Supplement	0.25 x [Family medical expenses (C17 in the Excel spreadsheet) – Net Income (B50 in the Excel spreadsheet) x 0.03] – 0.05 x [Family Net Income – UCCB – \$24,783] <i>Note: To be eligible to claim the refundable medical expense supplement, the person must be eligible for the non-refundable medical expenses tax credit. The benefit works out to zero when family net income (excluding the UCCB) is \$47,163 or higher.</i>	"1"

*For single individuals this amount is \$970.

** For single individuals this amount is \$11,011.

At the calculated living wages for Winnipeg, only the single-parent with one child qualifies for the Refundable Medical Expense Supplement (not the WITB).

Federal Tax Brackets

For 2012, the tax rate on taxable income less than \$42,707 is 15 per cent. For taxable income between \$42,707 and \$85,414 it is 22 per cent. Therefore, if the taxable income of either parent increases above \$42,707, the formula for "Taxable Income x tax rate" becomes:

$$\text{Taxable Income} \times \text{tax rate} = (\$42,707 \times 0.15) + ((\text{Taxable Income} - \$42,707) \times 0.22)$$

Provincial Income Tax

The structure of the provincial income tax calculation for Manitoba is as follows:

Provincial Income Tax = (Taxable Income x tax rate) – (Non-Refundable Tax Credits x Non-Refundable tax credit rate) – Manitoba Credits

Taxable Income is the same as for the Federal tax calculation.

Non-Refundable Manitoba Tax Credits

Table 11: Non-Refundable Manitoba Tax Credits

Tax Credits	Comments	Claimed by Parent
Basic Personal Amount	= \$8,634 in 2012	Both
EI Premiums	= Employment Income x premium rate; 2012 premium rate is 0.0183, up to a maximum of \$839.97	Both
CPP Premiums	= (Employment Income – \$3,500) x premium rate; 2012 premium rate is 0.0495, up to a maximum of \$2,306.70	Both
Tuition, education and textbook amount	For part time adults: = Eligible tuition fees (determined to be \$746 for 6 credit hours in the Expenses section) + Education amount (\$120/month x 8 months)	Both
Family Tax Benefit	= \$2,065 – (Net Income x 0.09)	"1"
Family Tax Benefit	= \$2,065 + \$2,752 per child – (Net Income x 0.09)	"2" (parent "2" claims the children's amount as they have a higher taxable income)
Medical expenses	= Family medical expenses (C17 in the Excel spreadsheet) – Taxable Income (B50 in the Excel spreadsheet) x 0.03 <i>Note: To be eligible to claim medical expenses, the family's annual medical expenses must be greater than 3% of the taxable income of the person claiming the expenses.</i>	"1" (the parent with the lower taxable income should claim this amount as the expense amount is reduced by taxable income times 3%)

*Note: In addition to the basic personal amount for self, single-parent families can claim the basic personal amount for an eligible dependant minus the UCCB (the latter of which is considered income for the child) for their first child. This is reflected in the formula in Cell H55 of the Excel spreadsheet for the single-parent families.

Refundable Manitoba Tax Credits

Only one parent in the family can claim Refundable Manitoba Tax Credits (or simply, Manitoba Credits).

Table 12: Refundable Manitoba Tax Credits

Tax Credit	Comments
Basic Credit	= \$195 in 2012
Basic Credit for spouse or common-law partner	= \$195 in 2012
Credit for dependant children	= \$26 per child in 2012
Family income reduction	= -1 (Family Net Income – UCCB) x 0.01
Education property tax credit	= \$700 in 2012

Provincial Tax Brackets

For 2012, the tax rate on taxable income of \$31,000 or less is 10.8%. For taxable income greater than \$31,000 but not more than \$67,000, it is 12.75%. Therefore, if the taxable income of either parent increases above \$31,000, the formula for “Taxable income x tax rate” becomes:

$$\text{Taxable Income} \times \text{tax rate} = (\$31,000 \times 0.108) + ((\text{Taxable Income} - \$31,000) \times 0.1275)$$

As noted, formulas and tax rates may change each year. Thus, at this point, ensure that all Federal and Provincial tax formulas and rates are current to the year for which you are doing the study.

STAGE 4: DETERMINING THE LIVING WAGE AMOUNT

This step is the easiest. Examine Table III in the Excel spreadsheet. Cell C39 represents the gap between Available Annual Income and Annual Family Expenses. The Living Wage amount is the wage at which the gap is as small as possible while still being greater than \$0.00.

Therefore, if the gap line is negative, increase the Living Wage amount in Cell B46. If the gap is positive, reduce the Living Wage amount in Cell B46 until the gap is negative, and then increase it until the gap line has its lowest possible positive amount. Each time you change the Living Wage amount all formulas in the spreadsheet need to be recalculated. The shortcut for this is F9 in Excel for Windows and Command+= in Excel for Mac. You may have to repeatedly recalculate until all of the calculations stabilize.

STAGE 5: VERIFYING THE CALCULATIONS

You can verify some of the calculations that are part of the living wage calculation through online calculators on the Canada Revenue Agency and Manitoba Government (child care subsidy) websites. Note however, that the calculators that are typically available are for the current tax year.

You are finished!



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